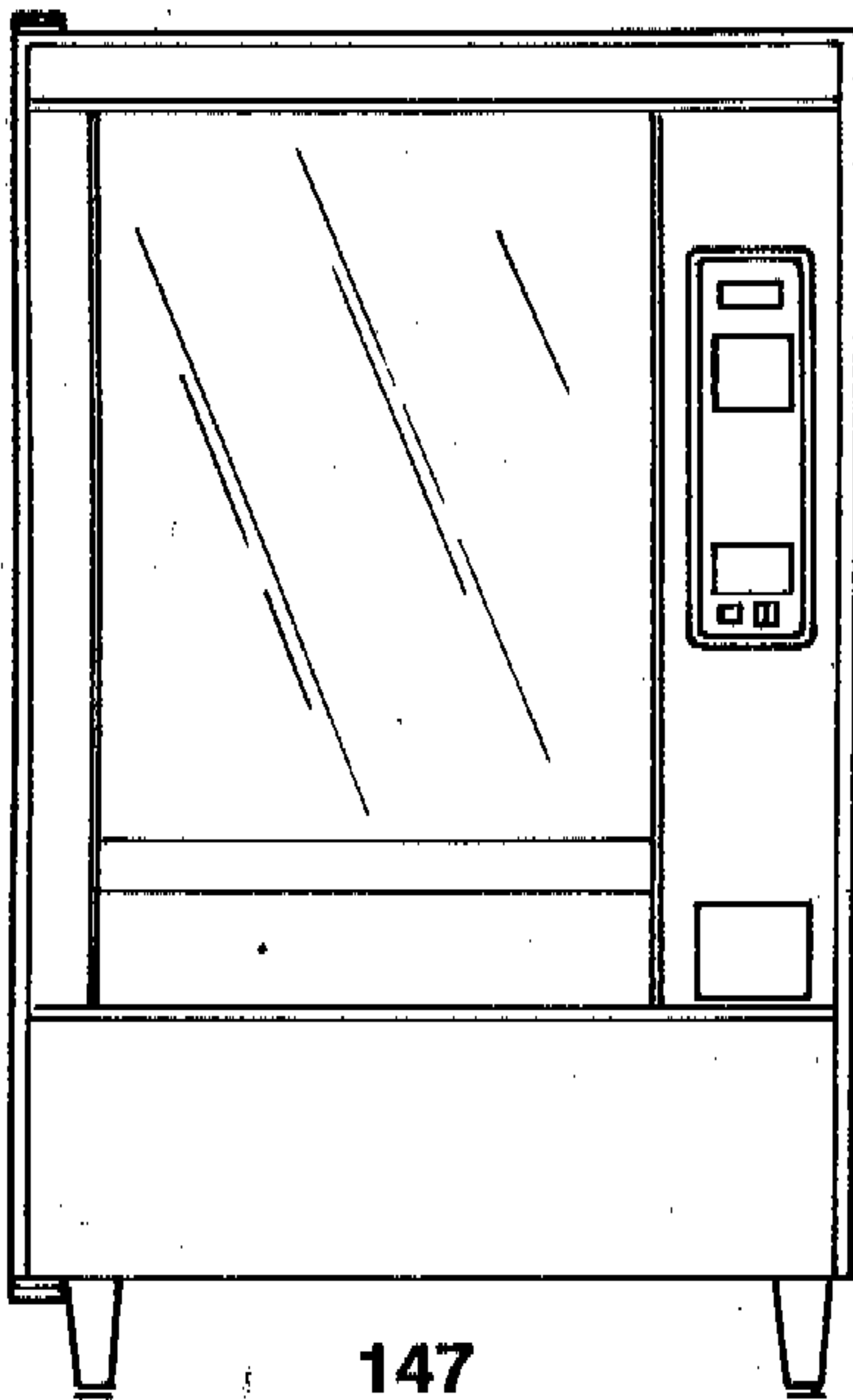1470010 Rev A

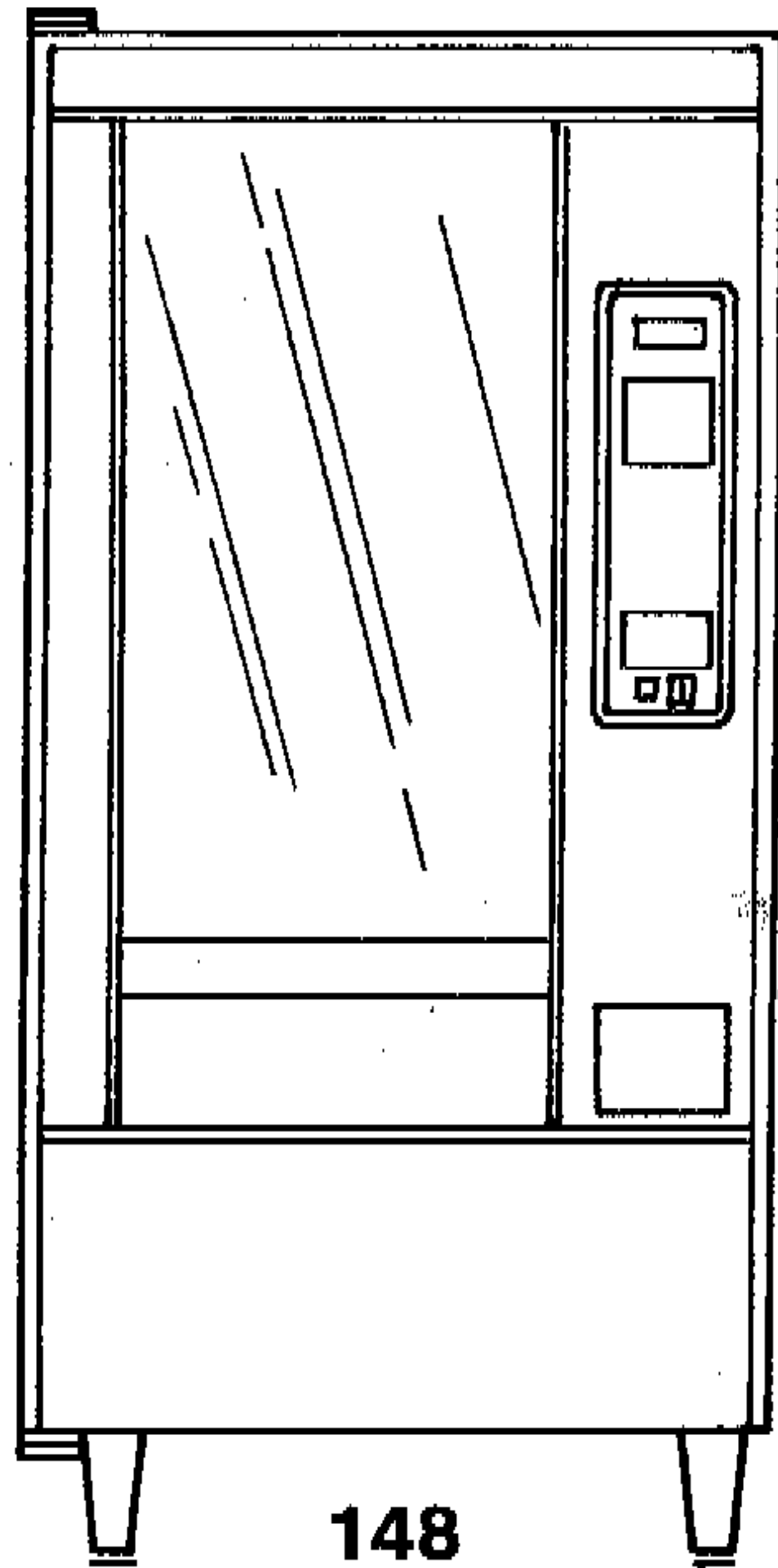# *SnackCenter 1*

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OPERATION & MAINTENANCE MANUAL

147

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CRANE

CRANE-NATIONAL VENDORS

12955 ENTERPRISE WAY
BRIDGETON, MO 63044

FUNCTION	IF YOU WANT TO ...			COMPLETE THIS PROCEDURE
CODE	Access functions/procedures reserved for the Supervisor			P0-1
PRICE	Set entire machine to one price			P1-1
	Set a tray to one price			P1-2
	Price an individual selection			P1-3
	Check the price of an individual selection			P1-3
DATA	COUNTS (Volume)	TOTAL VENDS	For the machine	P2-2a
			For a tray	P2-2b
			For a selection	P2-2c
		FREE VENDS	For the machine	P2-3a
			For a tray	P2-3b
			For a selection	P2-3c
		TEST VENDS	For the machine	P2-15a
			For a tray	P2-15b
			For a selection	P2-15c
	SALES (Value)	TOTAL SALES	For the machine	P2-7a
			For a tray	P2-7b
			For a selection	P2-7c
		FREE VEND SALES	For the machine	P2-8a
			For a tray	P2-8b
			For a selection	P2-8c
	Validator stacker bill inventory			P2-13
	Coin Mech tube inventory			P2-14
	Cash Box inventory			P2-16
FREE VEND	Put the merchandiser on Free Vend			P3-1
	Take merchandiser off Free Vend			P3-2

FUNCTION	IF YOU WANT TO ...		COMPLETE THIS PROCEDURE
CONFIGURE	Set the basic configuration for the machine		P4-1
	Couple or uncouple adjacent positions on a tray		P4-2
	Identify the type of Coin Mech being used		P4-3
	Identify the type of Bill Validator being used		P4-4
	Identify the language to be used in the display messages		P4-5
	Limit access to functions with LOCK/UNLOCK procedure		P4-6
	Define the number of $1 bills validator will accept		P4-7
	Set the Validator for ESCROW or NO ESCROW		P4-8
	Tell the Controller which trays are in use		P4-9
PAYOUT	A SINGLE COIN	Quarter	P5-1
		Dime	P5-2
		Nickel	P5-3
	INVENTORY OF AN ENTIRE TUBE	Quarter	P5-4
		Dime	P5-5
		Nickel	P5-6
	INVENTORY OF ALL TUBES		P5-7
SERVICE	Retrieve the Software Version number		P7-1
	Check operation of the display elements		P7-2
	Put all of the motors in the Home position		P7-3
	Check communication with the Coin Mech		P7-4
	Check communication with the Bill Validator		P7-5
TEST VEND	A single selection without establishing credit		P13-1
	A single selection after establishing EXACT credit		P13-2
	A single selection after establishing LESS credit than required		P13-3
	A single selection after establishing MORE credit than required		P13-4

PROGRAMMING THE SNACK CENTER

* SNACK CENTER programming is structured in a matrix.

* Most of the tasks you will want to complete are joined together within this matrix. However, *TEST VEND* and *FREE VEND* are not part of the matrix.

* The Basic Programming Method should be used in the beginning. This method is easy to learn.

* The Advanced Programming Techniques can be used later if you wish. As you become more comfortable with programming the SNACK CENTER, these techniques can save you time.

* All programming is done by using the Function Selection Panel, the Selection Switch Panel and the Credit Display.

THE BASIC PROGRAMMING METHOD

1. Look in the Programming Directory for the task you want to complete. The Programming Directory is in the center of this section.

2. The Procedure Number is your key to locating the procedure that will enable you to complete your task.

3. Locate the indicated procedure. A collection of Programming Procedures is at the end of this section.

4. Complete the sequence of steps given in the procedure.

5. Repeat Steps 1-4 as often as necessary.

A PROGRAMMING EXAMPLE USING THE BASIC METHOD

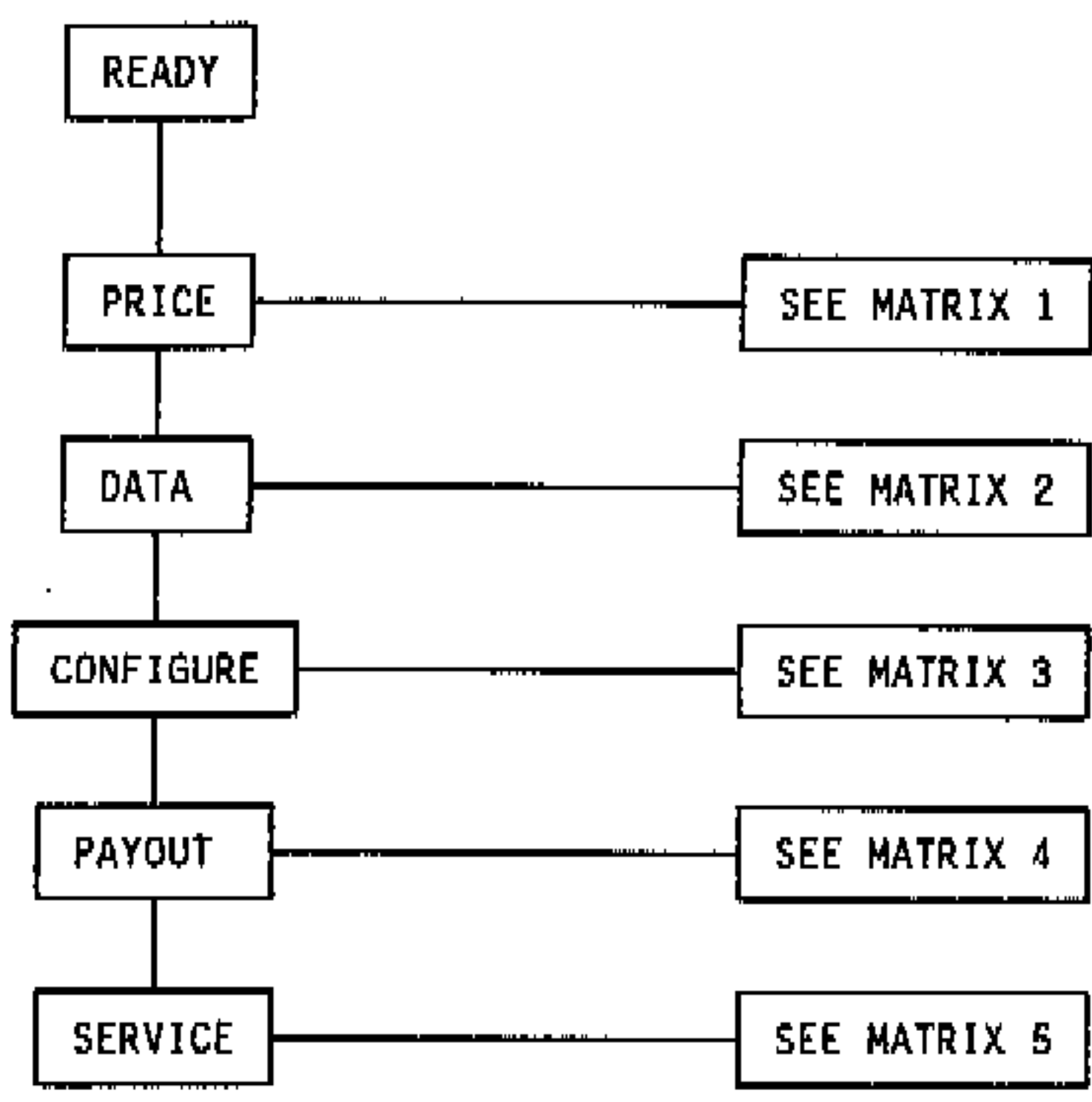TASK TO BE COMPLETED: Retrieve *FREE SALES for Tray C*

1. Locate the task in the Programming Directory.

2. The Procedure Number is P2-8b.

3. Make sure you can locate Procedure P2-8b in the collection of Programming Procedures. In order to help you learn the method better, Procedure P2-8b will also be presented with this example.

4. The following is a step-by-step explanation of the procedure.

    * Start at the top and work your way down in the Tray Column on the left side of the procedure table.

    * You should complete each step when an "X" appears in the Tray Column. When the "X" is missing, continue down the column to the next "X".

When You Enter This Keystroke ...	This Will Happen ...
DATA	You will enter the DATA mode
⟶►	You will enter the COUNTER category
↓	You will enter the SALES category
⟶►	You will enter the TOTAL SALES sub-group
↓	You will enter the FREE SALES sub-group
⟶►	You will enter the Machine Level FREE SALES retrieval procedure
⟶►	You will enter the Tray Level FREE SALES retrieval procedure The display will show A*F$ XXXXX
C	The display will show C*F$ XXXXX -- XXXXX is the value of the FREE VEND Sales for Tray C.

At this point, you have some options.

O P T I O N S		
	Close the monetary door	This will end the programming session.
	Press another function switch	This will allow you to begin another programming procedure
	Use an Advanced Technique	These will be explained under "Advanced Programming Techniques"

OVERALL
PROGRAMMING MATRIX

```
┌─────────┐
│  READY  │
└─────────┘
     │
┌─────────┐              ┌──────────────┐
│  PRICE  │──────────────│ SEE MATRIX 1 │
└─────────┘              └──────────────┘
     │
┌─────────┐              ┌──────────────┐
│  DATA   │──────────────│ SEE MATRIX 2 │
└─────────┘              └──────────────┘
     │
┌───────────┐            ┌──────────────┐
│ CONFIGURE │────────────│ SEE MATRIX 3 │
└───────────┘            └──────────────┘
     │
┌─────────┐              ┌──────────────┐
│ PAYOUT  │──────────────│ SEE MATRIX 4 │
└─────────┘              └──────────────┘
     │
┌─────────┐              ┌──────────────┐
│ SERVICE │──────────────│ SEE MATRIX 5 │
└─────────┘              └──────────────┘
```

PRICE
PROGRAMMING MATRIX

| PRICE |—| ENTIRE MACHINE (P1-1) |——| ENTIRE TRAY (P1-2) |——| INDIVIDUAL SELECTION (P1-3) |

DATA
PROGRAMMING MATRIX

```
DATA ─── COUNTS ─┬─ TOTAL ──── MACHINE ──── TRAY ──── INDIVIDUAL SELECTION
                 │   VENDS      (P2-2a)      (P2-2b)        (P2-2c)
                 │
                 │   FREE  ──── MACHINE ──── TRAY ──── INDIVIDUAL SELECTION
                 │   VENDS      (P2-3a)      (P2-3b)        (P2-3c)
                 │
                 │   TEST  ──── MACHINE ──── TRAY ──── INDIVIDUAL SELECTION
                 │   VENDS      (P2-15a)     (P2-15b)       (P2-15c)
                 │
                 ├─ SALES ─── TOTAL ──── MACHINE ──── TRAY ──── INDIVIDUAL SELECTION
                 │            SALES       (P2-7a)      (P2-7b)        (P2-7c)
                 │
                 │            FREE  ──── MACHINE ──── TRAY ──── INDIVIDUAL SELECTION
                 │            SALES       (P2-8a)      (P2-8b)        (P2-8c)
                 │
                 ├─ BILLS ─── $1 BILL COUNT (P2-13)
                 │
                 ├─ CBX  (P2-16)
                 │
                 └─ COINS ─── QUARTER TUBE COUNT (P2-14a)

                              DIME TUBE COUNT (P2-14b)

                              NICKEL TUBE COUNT (P2-14c)
```

PAYOUT
PROGRAMMING MATRIX

```
┌─────────┐      ┌──────────────┐                    ┌─────────────────────┐
│ PAYOUT  │──────│ SINGLE COIN  │────────────────────│  PAYOUT A QUARTER    │
└─────────┘      └──────────────┘                    │       (P5-1)         │
                        │                             └─────────────────────┘
                        │                                        │
                        │                             ┌─────────────────────┐
                        │                             │   PAYOUT A DIME      │
                        │                             │       (P5-2)         │
                        │                             └─────────────────────┘
                        │                                        │
                        │                             ┌─────────────────────┐
                        │                             │  PAYOUT A NICKEL     │
                        │                             │       (P5-3)         │
                        │                             └─────────────────────┘
                        │
                 ┌──────────────┐      ┌──────────────────────────────┐
                 │  BULK TUBE   │──────│  PAYOUT ALL OF THE QUARTERS   │
                 └──────────────┘      │           (P5-4)              │
                        │              └──────────────────────────────┘
                        │                            │
                        │              ┌──────────────────────────────┐
                        │              │   PAYOUT ALL OF THE DIMES     │
                        │              │           (P5-5)              │
                        │              └──────────────────────────────┘
                        │                            │
                        │              ┌──────────────────────────────┐
                        │              │  PAYOUT ALL OF THE NICKELS    │
                        │              │           (P5-6)              │
                        │              └──────────────────────────────┘
                        │
         ┌──────────────────────────────┐
         │   PAYOUT ALL OF THE COINS     │
         │           (P5-7)              │
         └──────────────────────────────┘
```
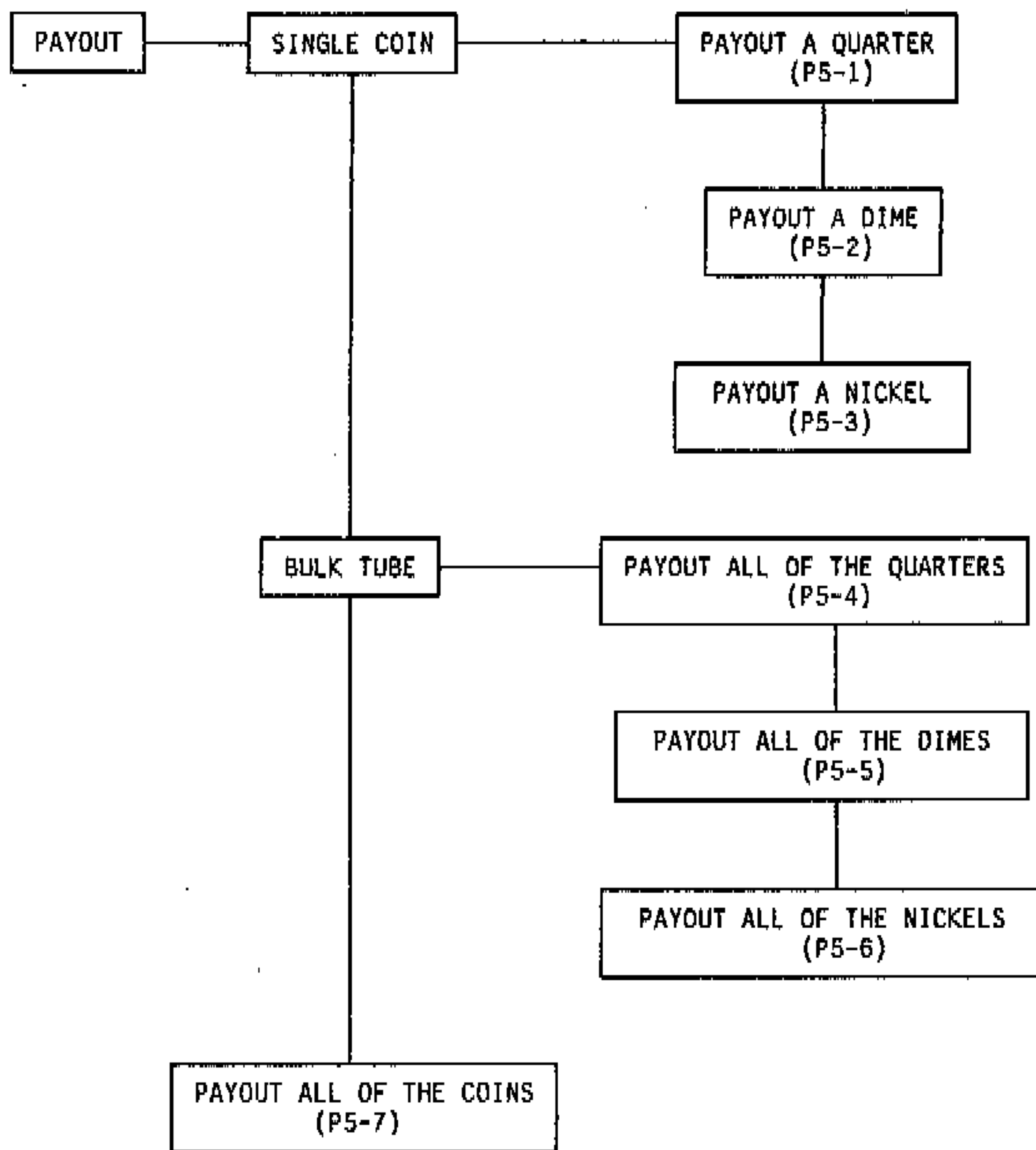
CONFIGURE
PROGRAMMING MATRIX

```
CONFIGURE ──── SET BASIC ──── SNK/CANDY
                    │          (P4-1)
                    │             │
                    │          TRAY LIST
                    │          (P4-9)
                    │             │
                    │          SET COUPLE
                    │          (P4-2)
                    │             │
                    │          $1 CONTROL ──── MAX PRICE
                    │                          (P4-7)
                    │                             │
                    │                          ESCROW/NO ESCROW
                    │                          (P4-8)
                    │
               SET MACH ──── DEFINE COIN MECHANISM
                    │         (P4-3)
                    │             │
                    │         DEFINE BILL VALIDATOR
                    │         (P4-4)
                    │             │
                    │         DEFINE LANGUAGE FOR DISPLAYS
                    │         (P4-5)
                    │
               MASTER ──── SET HIDE
                           (P4-6)
```

SERVICE
PROGRAMMING MATRIX

```
┌─────────┐      ┌──────────────────────────────────┐
│ SERVICE │──────│ RETRIEVE SOFTWARE VERSION NUMBER │
└─────────┘      │            (P7-1)                │
                 └──────────────────────────────────┘
                                 │
                      ┌─────────────────────┐
                      │  TEST THE DISPLAYS   │
                      │       (P7-2)         │
                      └─────────────────────┘
                                 │
                      ┌─────────────────────┐
                      │   HOME THE MOTORS    │
                      │       (P7-3)         │
                      └─────────────────────┘
                                 │
                    ┌──────────────────────────┐
                    │  TEST THE COIN MECHANISM  │
                    │          (P7-4)           │
                    └──────────────────────────┘
                                 │
                    ┌──────────────────────────┐
                    │   TEST THE BILL VALIDATOR │
                    │          (P7-5)           │
                    └──────────────────────────┘
```
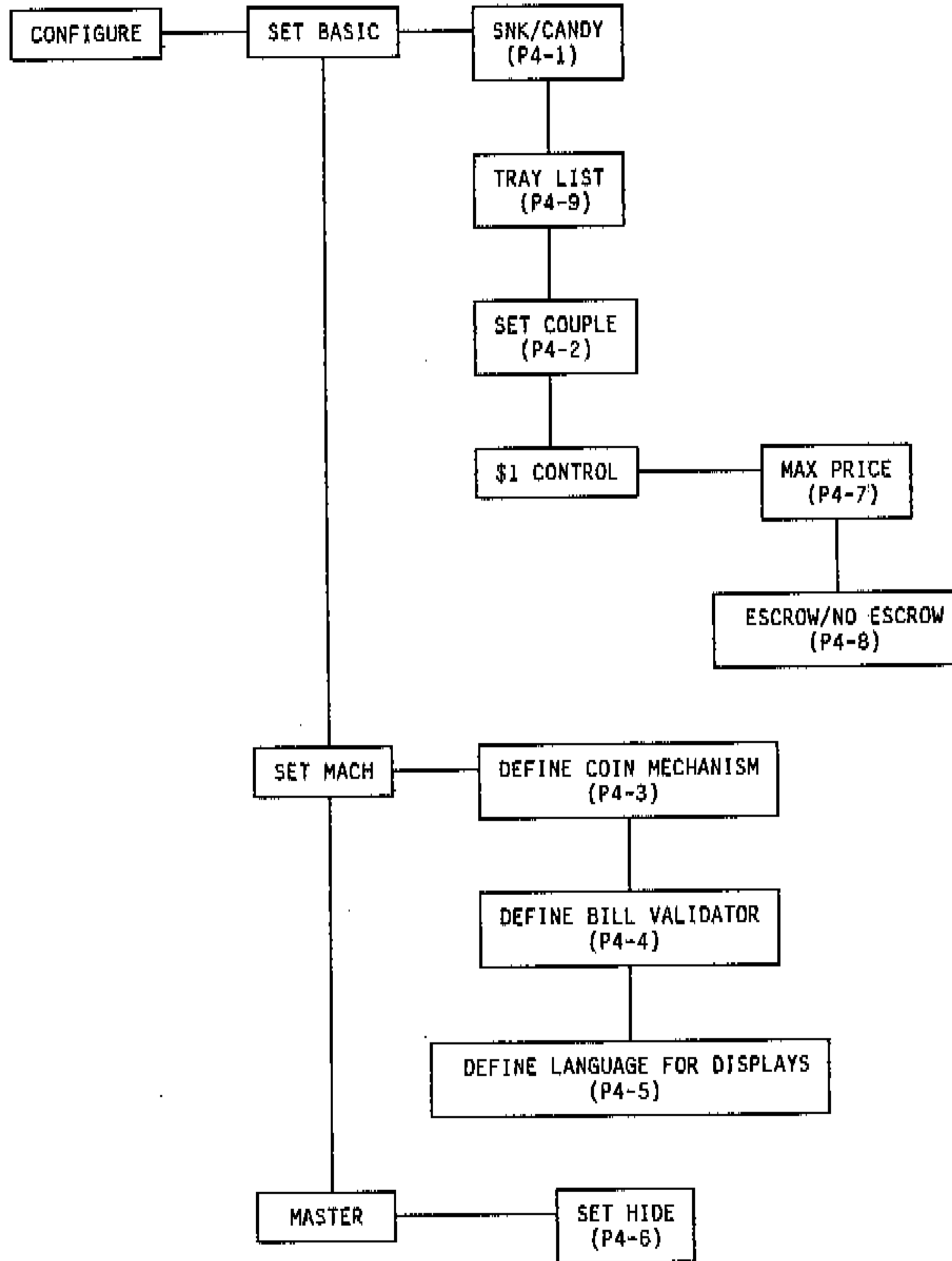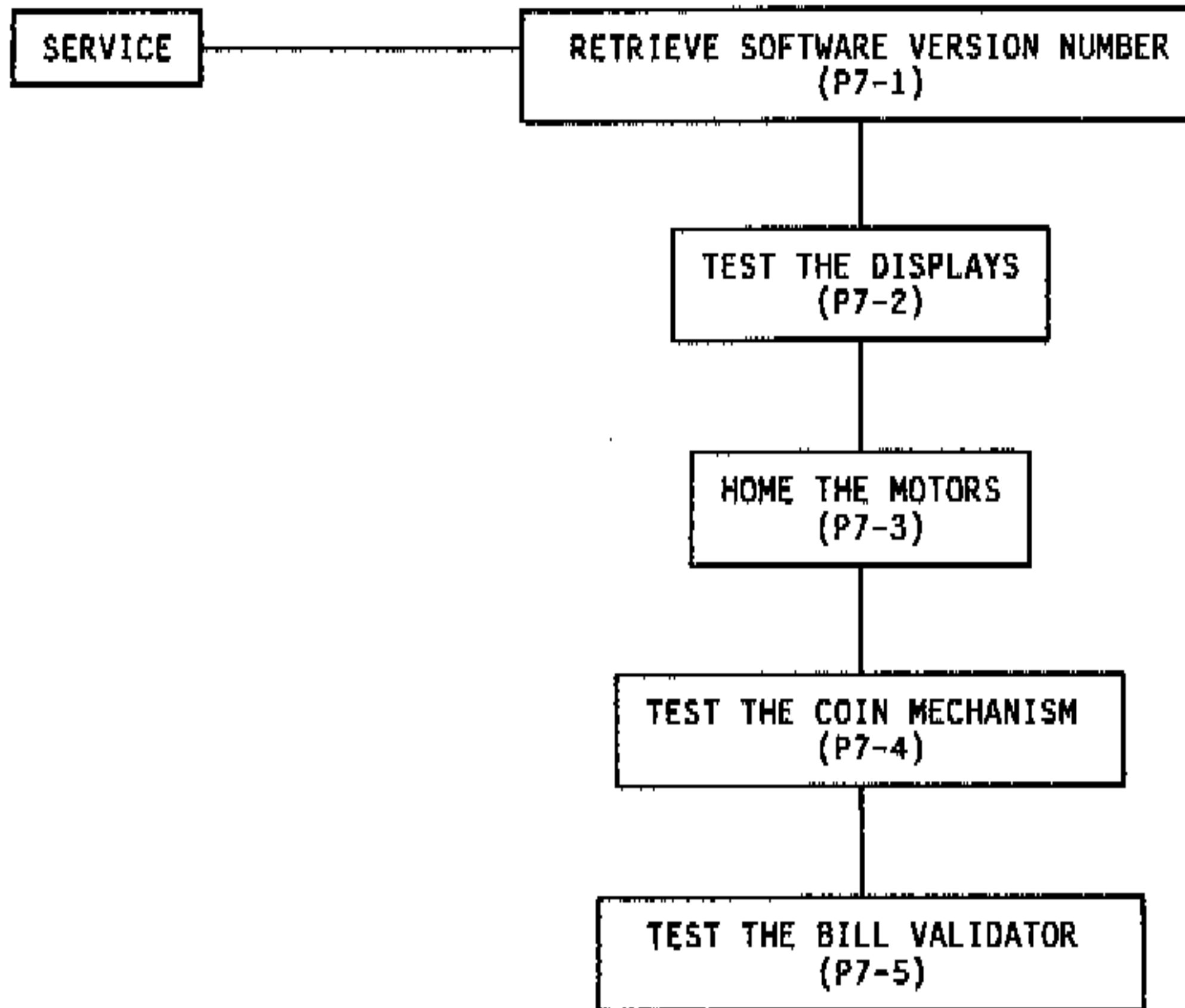
EXAMPLE 1 USING ADVANCED PROGRAMMING TECHNIQUES

Current Task: Retrieving *FREE VENDS* for a selection

Next Task: Retrieve *TOTAL VENDS* for a Tray

METHOD A

When You Enter This Keystroke ...	This Will Happen ...
←—	You will enter Tray Level FREE VEND retrieval procedure
◄—	You will enter Machine Level FREE VEND retrieval procedure
◄—	You will enter the FREE VEND group
↑	You will enter the TOTAL VEND group
—►	You will enter the Machine Level TOTAL VEND procedure
—►	You will enter the Tray Level TOTAL VEND retrieval procedure
See P2-2b for the remaining steps	You will be able to retrieve TOTAL VENDS for the tray

METHOD B

When You Enter This Keystroke ...	This Will Happen ...
HOME	You will move to the DATA function
—►	You will move to the COUNTERS category
—►	You will move to the TOTAL VENDS group
—►	You will enter the Machine Level TOTAL VEND procedure
—►	You will enter the Tray Level TOTAL VEND retrieval procedure
See P2-2b for the remaining steps	You will be able to retrieve TOTAL VENDS for the tray

In this example, Method B is the most efficient.

EXAMPLE 2 USING ADVANCED PROGRAMMING TECHNIQUES

Current Task: Retrieving *TOTAL SALES* for the machine

Next Task: Retrieve *TOTAL SALES* for a selection

METHOD A

When You Enter This Keystroke ...	This Will Happen ...
⟶	You will enter the Tray Level TOTAL SALES procedure
⟶	You will enter the Selection Level TOTAL SALES procedure
See P2-7c for the remaining steps	You will be able to retrieve TOTAL SALES for a selection

METHOD B

When You Enter This Keystroke ...	This Will Happen ...
HOME	You will enter the DATA function
⟶	You will enter the COUNTERS category
↓	You will enter the SALES category
⟶	You will enter the TOTAL SALES group
⟶	You will enter the Machine Level TOTAL SALES procedure
⟶	You will enter the Tray Level TOTAL SALES procedure
⟶	You will enter the Selection Level TOTAL SALES procedure
See P2-7c for the remaining steps	You will be able to retrieve TOTAL SALES for a selection

In this example, Method A is the most efficient.

EXAMPLE 3 USING ADVANCED PROGRAMMING TECHNIQUES

Current Task: Changing the Coin Mechanism Definition

Next Task: Directing the Coin Mechanism to PAYOUT an Nickel

METHOD A

When You Enter This Keystroke ...	This Will Happen ...
PAYOUT	You will enter the PAYOUT function
⟶	You will enter the SINGLE COIN category
⟶	You will enter the Quarter Level PAYOUT procedure
↓	You will enter the Dime Level PAYOUT procedure
↓	You will enter the Nickel Level PAYOUT procedure
See P5-3 for the remaining steps.	You will be able to PAYOUT a Nickel

METHOD B

When You Enter This Keystroke ...	This Will Happen ...
HOME	You will enter the CONFIGURE function
↓	You will enter the PAYOUT function
⟶	You will enter the SINGLE COIN category
⟶	You will enter the Quarter Level PAYOUT procedure
↓	You will enter the Dime Level PAYOUT procedure
↓	You will enter the Nickel Level PAYOUT procedure
See P5-3 for the remaining steps.	You will be able to PAYOUT a Nickel

In this example, Method A is the most efficient.

* Refer to the PROGRAMMING MATRIX during this discussion. The Matrix is located on the preceding seven pages.

DEFINITIONS

Function Column - the left-hand column in the Programming Matrix.

Root Function - a specific position in the Function Column. *PRICE, DATA, CONFIGURE, PAYOUT* and *SERVICE* are Root Functions.

TECHNIQUES

* Each of these techniques will be used in an example.

1. Use the *HOME* switch.

If Your Location In The Matrix Is ...	Pressing HOME Will Move You To ...
The Function Column	The READY Position
Anywhere else in the Matrix	The Root Function of the procedure where you are currently located

2. Use one of the *ARROW* switches.

   - Locate your position in the Matrix.
   - Trace a path from where you are to where you want to go.
   - Use the *ARROW* switches to move along this path.

3. Use the *HOME* switch and the *ARROW* switches in combination.

   - There is more than one way to get from one point to another in the Matrix.
   - The most efficient method uses the fewest number of keystrokes. This will come with practice.

4. Use the *ARROWS* to scroll through the list of trays when specifying a Tray in the following procedures:
   - Pricing a Tray
   - Retrieving COUNT data for a Tray
   - Retrieving SALES data for a tray
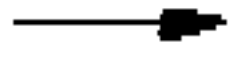
5. Use the *ARROWS* to scroll through the list of selections when specifying a selection in the following
   procedures:
   - Pricing a Selection
   - Retrieving COUNT data for a Selection
   - Retrieving SALES data for a Selection

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
Access all of the Functions including those reserved for the Supervisor	HOME		
	↑	CODE	
	→	ENTER CODE	
	ENTER/ACTION	UNLOCK	
	HOME	CODE	
	CONTINUE		You may access any of the Functions. Follow the procedures in the Programming Section of this Manual

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
Access all of the Functions including those reserved for the Supervisor	HOME		
	↑	CODE	
	⟶	ENTER CODE	
	ENTER/ACTION	UNLOCK	
	HOME	CODE	
	CONTINUE		You may access any of the Functions. Follow the procedures in the Programming Section of this Manual

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS
P1-1 PRICE the entire machine to one price	PRICE		PRICE	Price setting mode entered
	➞		MACH LVL	Allows pricing for the entire machine at one time
	➞		** PR XX.XX	XX.XX is the price from the last pricing session
	Use Selection Switch Panel to enter a new price for the machine		** PR XX.XX	
	O P T I O N S	ENTER/ ACTION	MACH LVL	XX.XX from prior display becomes the new price for entire machine. ALL PRIOR PRICES ARE REPLACED BY THIS PRICE.
		CONTINUE		XX.XX from prior display is recorded for future reference. It will appear in the display the next time you enter MACH LVL. ------------------- PRIOR PRICES ARE NOT CHANGED TO THIS PRICE. ------------------- Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS
P1-2 PRICE a Tray to one Price	PRICE		PRICE	Price setting mode entered
	⟶		MACH LVL	
	↓		TRAY LVL	Allows Pricing of an entire Tray at the same time
	⟶		T* PR XX.XX	XX.XX is the price from the last pricing session
	O P T I O N S	Procede to next step if you want to Price this Tray		
		Enter ID for another Tray that you want to Price		Use Selection Switch Panel to make entry
	Use Selection Switch Panel to enter a new price for the tray		T* PR XX.XX	
	O P T I O N S	ENTER/ ACTION	TRAY LVL	XX.XX from prior display becomes the new price for entire tray. ALL PRIOR PRICES ARE REPLACED BY THIS PRICE.
		CONTINUE		XX.XX from prior display is recorded for future reference. It will appear in the display the next time you enter TRAY LVL. -------------------------- PRIOR PRICES ARE NOT CHANGED TO THIS PRICE. -------------------------- Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P1-3 PRICE an individual selection	PRICE	PRICE	Price setting mode entered
	⟶	MACH LVL	
	↓	TRAY LVL	
	↓	SELECT LVL	Allows pricing for an individual selection
	⟶	TC PR XX.XX	TC = Selection ID ------------------------ T = Tray ID Options:A B C D E F G H ------------------------ C = Column Position Options: 0 1 2 3 4 5 6 7 8 9
	O P T I O N S Procede to next step if you want to price this Selection		
	Enter ID for another Selection that you want to Price		Use Selection Switch Panel to make entry
	Use Selection Switch Panel to enter new Price for the Selection		XX.XX is the new Price for the Selection
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

c   b   a

If you want to retrieve TOTAL VEND COUNTS by			ENTER THIS	AND THE DISPLAY	
SELECTION	TRAY	MACHINE	KEYSTROKE ...	INDICATES ...	COMMENTS
X	X	X	DATA	DATA	Data mode entered
X	X	X	⟶	COUNTERS	Allows retrieval of Count data
X	X	X	⟶	TOT VENDS	Allows retrieval of Total Vend Counts
X	X	X	⟶	**T XXXXXX	XXXXXX = Total Vend Count for the machine
X	X		⟶	T*CTXXXXXX	T = Tray ID Options: A B C D E F G H ------------------------- XXXXXX = Total Vend Count for the tray
	X		Enter ID for tray of interest		Use Selection Switch Panel to make entry
X			⟶	TC XXXXXX	TC = Selection ID, Where - ------------------------- T = Tray ID Options: A B C D E F G H ------------------------- C = Column ID Options: 0 1 2 3 4 5 6 7 8 9 ------------------------- XXXXXX = Total Vend Count for the selection
X			Enter ID for the selection of interest		Use Selection Switch Panel to make entry
X	X	X	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

c	b	a			
If you want to retrieve FREE VEND COUNTS by			ENTER THIS	AND THE DISPLAY	COMMENTS
SELECTION	TRAY	MACHINE	KEYSTROKE ...	INDICATES ...	
X	X	X	DATA	DATA	Data mode entered
X	X	X	——➡	COUNTERS	Allows retrieval of Count Data
X	X	X	——➡	TOT VENDS	
X	X	X	↓	FREE CNT	Allows retrieval of Free Vend Counts
X	X	X	——➡	**FV XXXXXX	XXXXXX = Free Vend Count for the machine
X	X		——➡	T*FV XXXXXX	T = Tray ID Options: A B C D E F G H - XXXXXX = Free Vend Count for the tray
	X		Enter ID for tray of interest		Use Selection Switch Panel to make entry
X			——➡	TCFV XXXXXX	TC = Selection ID. Where - - T = Tray ID Options: A B C D E F G H - C = Column ID Options: 0 1 2 3 4 5 6 7 8 9 - XXXXXX = Free Vend Count for the selection
X			Enter ID for the selection of interest		Use Selection Switch Panel to make entry
X	X	X	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

    c   b   a

If you want to retrieve TOTAL SALES by			ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES ...	COMMENTS
SELECTION	TRAY	MACHINE			
X	X	X	DATA	DATA	Data mode entered
X	X	X	→	COUNTERS	
X	X	X	↓	SALES	Allows retrieval of Sales data
X	X	X	→	TOT SLS	Allows retrieval of Total Sales data
X	X	X	→	**$ XXXXXX	XXXXXX = Total Sales for the machine
X	X		→	T*$ XXXXXX	T = Tray ID Options: A B C D E F G H ------------------------------------ XXXXXX = Total Sales for the Tray
	X		Enter ID for tray of interest		Use Selection Switch Panel to make entry
X			→	TC$ XXXXXX	TC = Selection ID. Where — ------------------------------------ T = Tray ID Options: A B C D E F G H ------------------------------------ C = Column ID Options: 0 1 2 3 4 5 6 7 8 9 ------------------------------------ XXXXXX = Total Sales for the selection
X			Enter ID for the selection of interest		Use Selection Switch Panel to make entry
X	X	X	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

c b a

If you want to retrieve FREE VEND SALES by			ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES ...	COMMENTS
SELECTION	TRAY	MACHINE			
X	X	X	DATA	DATA	Data mode entered
X	X	X	——▶	COUNTERS	
X	X	X	↓	SALES	Allows retrieval of Sales data
X	X	X	——▶	TOT SLS	
X	X	X	↓	FREE SLS	Allows retrieval of Free Vend Sales data
X	X	X	——▶	**F$ XXXXXX	XXXXXX = Free Vend Sales for the machine
X	X		——▶	T*F$ XXXXXX	T = Tray ID Options: A B C D E F G H ------- XXXXXX = Free Vend Sales for the tray
	X		Enter ID for tray of interest		Use Selection Switch Panel to make entry
X			——▶	TCF$ XXXXXX	TC = Selection ID. Where - ------- T = Tray ID Options: A B C D E F G H ------- C = Column ID Options: 0 1 2 3 4 5 6 7 8 9 ------- XXXXXX = Free Vend Sales for the selection
X			Enter ID for the selection of interest		Use Selection Switch Panel to make entry
X	X	X	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

If you want to know the validator BILL count for		ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES ...	COMMENTS
$1 BILLS				
X		DATA	DATA	Data mode entered
X		⟶	COUNTERS	
X		↓	SALES	
X		↓	BILLS	Allows retrieval of the number of bills controller sees in validator stacker inventory
X		⟶	ONES XXX	XXX = The number of $1 bills controller sees in validator inventory

If you want to know the tube COIN count for			ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES ...	COMMENTS
5¢	10¢	25¢			
X	X	X	DATA	DATA	Data mode entered
X	X	X	⟶	COUNTERS	
X	X	X	↓	SALES	
X	X	X	↓	BILLS	
X	X	X	↓	CBX	
X	X	X	↓	COINS	Allows retrieval of the number of coins controller sees as inventory in Coin Mech tubes
X	X	X	⟶	QTR XXX	XXX = The number of Quarters controller sees in tube inventory
X	X		↓	DIM XXX	XXX = The number of Dimes controller sees in tube inventory
X			↓	NKL XXX	XXX = The number of Nickels controller sees in tube inventory

	c	b	a			
If you want to retrieve TEST VEND COUNTS by				ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES ...	COMMENTS
	SELECTION	TRAY	MACHINE			
	X	X	X	DATA	DATA	Data mode entered
	X	X	X	⟶	COUNTERS	Allows retrieval of Count Data
	X	X	X	⟶	TOT VENDS	
	X	X	X	↓	FREE CNT	
	X	X	X	↓	TEST VENDS	Allows retrieval of Test Vend Counts
	X	X	X	⟶	**TV XXXXXX	XXXXXX = Test Vend Count for the machine
	X	X		⟶	T*TV XXXXXX	T = Tray ID Options: A B C D E F G H XXXXXX = Test Vend Count for the tray
		X		Enter ID for tray of interest		Use Selection Switch Panel to make entry
	X			⟶	TCTV XXXXXX	TC = Selection ID. Where - T = Tray ID Options: A B C D E F G H C = Column ID Options: 0 1 2 3 4 5 6 7 8 9 XXXXXX = Test Vend Count for the selection
	X			Enter ID for the selection of interest		Use Selection Switch Panel to make entry
	X	X	X	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

If You Want To Know The Value Of The Coins Sent To The CASH BOX	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES ...	COMMENTS
X	DATA	DATA	Data mode entered
X	⟶	COUNTERS	
X	↓	SALES	
X	↓	BILLS	
X	↓	CBX XXXX	XXXX = Value of coins sent to the CASH BOX

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P3-1 Put the merchandiser on FREE VEND	FREE VEND	NO MONEY / REQUIRED	Free Vend mode entered
	CONTINUE	.	Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P3-2 Take the merchandiser off FREE VEND	FREE VEND	READY	Free Vend mode exited
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P4-1 Set the basic CONFIGURATION	CONF	CONFIGURE	Configure mode entered
	⟶	SET BASIC	Allows selection of a basic configuration
	⟶	Basic Configuration Is Displayed	Options: SNK/CANDY SNK/CANS SNK/COFFEE SN/CAN/COF
	ENTER/ ACTION	SNK/CANDY	Scroll through list of basic configurations until SNK/CANDY is displayed
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS	
P4-2 COUPLE or UNCOUPLE two adjacent positions on a tray	CONF		CONFIGURE	Configure mode entered	
	———▶		SET BASIC		
	———▶		SNK/CANDY	Allows configuration of a Snack and Candy machine	
	Press ↓ two times		SET COUPLE	Allows coupling and uncoupling of adjacent positions	
	———▶		CPLT 02468	T = Tray ID Options: A B C D E F G K	
	Use Selection Switch Panel to select a tray. Enter the tray ID.			Allows selection of the tray with positions to be coupled or uncoupled	
	O P T I O N S	Couple a of pair of motors that are not presently coupled. ---------------- Enter Column ID for the left most Column in the pair		The column ID is shown for each column pair that is coupled ---------------- If the column ID is not shown, the pair is NOT coupled	
		Uncouple a pair of motors that are presently coupled ---------------- Enter Column ID for the left most Column in the pair		WHEN THIS SHOWN / THIS PAIR COUPLED 0 → 0 and 1 2 → 2 and 3 4 → 4 and 5 6 → 6 and 7 8 → 8 and 9	
		Make no changes		USE THIS SWITCH / TO COUPLE OR UNCOUPLE THIS PAIR 0 → 0 and 1 2 → 2 and 3 4 → 4 and 5 6 → 6 and 7 8 → 8 and 9	
	O P T I O N S	Repeat prior step.			
		CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options	

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P4-3 Define the COIN MECH being used	CONF	CONFIGURE	Configure mode entered
	⟶	SET BASIC	
	↓	SET MACH	Allows machine interface selection
	⟶	Defined Coin Mech Is Displayed	Options: DUMB MECH EXEC MECH NO COIN MK
	ENTER/ ACTION		Scroll through list of Coin Mech options until the type you want to use is displayed
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P4-4	CONF	CONFIGURE	Configure mode entered
Define the VALIDATOR being used	➤	SET BASIC	
	↓	SET MACH	Allows machine interface selection
	➤	Defined Coin Mech Is Displayed	
	↓	Defined Validator Is Displayed	Options: NO VALDTR PULSE $1 PULSE $1/5 * SERIAL VAL *　Not Supported
	ENTER/ ACTION		Scroll through list of Validator options until the type you want to use is displayed
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P4-5	CONF	CONFIGURE	Configure mode entered
Define the LANGUAGE used in the displays	⟶▶	SET BASIC	
	↓	SET MACH	Allows machine interface selection
	⟶▶	Defined Coin Mech Is Displayed	
	↓	Defined Validator Is Displayed	
	↓	Defined Language Is Displayed	Options: US ENGLISH UK ENGLISH GERMAN LNG DUTCH LNG FRENCH LNG * * Not Supported
	ENTER/ ACTION		Scroll through list of Language options until the Language you want to use is displayed
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
Control Access to Functions with the LOCK/UNLOCK Procedure	Open the Cabinet Door		
	↑	CODE	
	⟶	ENTER CODE	You are being asked to enter the Supervisory Access Code
	ENTER/ACTION	UNLOCK	You now have access to the Supervisory procedures
	HOME	CODE	You may now access any of the Functions or Procedures
	CONF	CONFIGURE	You may now access the CONFIGURE Function
	⟶	SET BASIC	
	Press ↓ two times	MASTER	You may now access the procedures available only to the Supervisor
	⟶	SET HIDE	You may now lock and unlock functions
	⟶	OPTIONS — FUNCTION ... LOCKED	Users must have the Supervisors Code to to access this function
		OPTIONS — FUNCTION ... UNLOCK	All users have access to this function
	OPTIONS — Press ENTER/ACTION to change from LOCK to UNLOCK for this function	FUNCTION ... UNLOCK	
	OPTIONS — Press ENTER/ACTION to change from UNLOCK to LOCK for this function	FUNCTION ... LOCK	
	Press ↓ to LOCK or UNLOCK other Functions	OPTIONS — FUNCTION ... LOCKED / FUNCTION ... UNLOCK	
	OPTIONS — Repeat prior step for another function		
	OPTIONS — CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
Define the number of $1 bills to be accepted by the Validator	CONF	CONFIGURE	Configure mode entered
	⟶	SET BASIC	Allows selection of a basic configuration
	⟶	SNK/CANDY	
	Press ↓ three times	$1 CONTROL	You may now define the number of $1 bills the validator will accept
	⟶	MAX PRICE	Bills will be accepted up to first whole dollar over highest price
OPTIONS — Set the number of $1 bills accepted to MAX PRICE by proceeding to the last step			
	Press ENTER/ACTION to move to the second $1 bill Accept option	FIXED N	This option is not supported at this time
	Press ENTER/ACTION to move to the third $1 bill Accept option	AUTO LIMIT	When Validator is set for ESCROW, bills are accepted as long as enough change can be returned
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES		COMMENTS
Set the Validator for ESCROW or for NO ESCROW	CONF	CONFIGURE		Configure mode entered
	➡	SET BASIC		Allows selection of a basic configuration
	➡	SNK/CANDY		
	Press ↓ three times	$1 CONTROL		You may now define the number of $1 bills the validator will accept
	➡	O P T I O N S	MAX PRICE	
			FIXED	
			AUTO LIMIT	
	↓	O P T I O N S	ESCROW	Pressing coin return button will allow full refund of the credit when no purchase is made
			NO ESCROW	Forces the purchase and returns change due at end of vend
	O P T I O N S	Press ENTER/ACTION to change from ESCROW to NO ESCROW	NO ESCROW	
		Press ENTER/ACTION to change from NO ESCROW to ESCROW	ESCROW	
		Do nothing and select the displayed option		
	CONTINUE			Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS
Identify the Trays that are in the merchandiser	CONF		CONFIGURE	Configure mode entered
	⟶		SET BASIC	Allows selection of a basic configuration
	⟶		SNK/CANDY	
	↓		TRAY LIST	With this procedure you can tell the Controller what Trays to look for when you close the door
	⟶		ABCDEFGH	ABCDEFGH are Tray ID's If the ID is shown in this List, the Controller will check to see if the Tray is inserted completely and is locked in place
	O P T I O N S	Add a tray to the List of trays in use		Press the ID letter of the tray to be added
		Remove a tray from the List of trays		Press the ID letter of the tray to be removed
		Do nothing if the Tray List is correct		
	O P T I . O N S	Repeat the prior step		
		CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P5-1	PAYOUT	PAYOUT	Payout mode entered
PAYOUT a single Quarter	⟶	SGL COIN	Enters individual coin Payout sequence
	⟶	QUARTER	
	ENTER/ ACTION	QUARTER	A single Quarter is paid out
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P5-2	PAYOUT	PAYOUT	Payout mode entered
PAYOUT a single Dime	➡	SGL COIN	Enters individial coin Payout sequence
	➡	QUARTER	
	⬇	DIME	
	ENTER/ ACTION	DIME	A single dime is paid out
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P5-3 PAYOUT a single Nickel	PAYOUT	PAYOUT	Payout mode entered
	⟶	SGL COIN	Enters individual coin Payout sequence
	⟶	QUARTER	
	↓	DIME	
	↓	NICKEL	
	ENTER/ ACTION	NICKEL	A single nickel is paid out
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P5-4 PAYOUT all of the quarters in tube inventory	PAYOUT	PAYOUT	Payout mode entered
	⟶►	SGL COIN	
	↓	BULK TUBE	Allows unloading of entire tube inventory
	⟶►	DOLLAR COIN	
	↓	QUARTER	Allows unloading of Quarter tube
	ENTER/ ACTION		Controller pays out all quarters that it has in tube inventory
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P5-5	PAYOUT	PAYOUT	Payout mode entered
PAYOUT all of the dimes in tube inventory	→	SGL COIN	
	↓	BULK TUBE	Allows unloading of entire tube inventory
	→	DOLLAR COIN	
	↓	QUARTER	
	↓	DIME	Allows unloading of dime tube
	ENTER/ ACTION		Controller pays out all dimes that it has in tube inventory
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P5-6	PAYOUT	PAYOUT	Payout mode entered
PAYOUT all of the nickels in tube inventory	⟶▶	SGL COIN	
	↓	BULK TUBE	Allows unloading of entire tube inventory
	⟶▶	DOLLAR COIN	
	↓	QUARTER	
	↓	DIME	
	↓	NICKEL	Allows unloading of nickel tube
	ENTER/ ACTION	NICKEL	Controller pays out all nickels that it has in tube inventory
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P5-7 PAYOUT all of the quarters, dimes & nickels in tube inventory	PAYOUT	PAYOUT	Payout mode entered
	⟶	SGL COIN	
	↓	BULK TUBE	
	↓	BULK ALL	Allows unloading of all tubes
	ENTER/ ACTION	BULK ALL	Controller pays out all quarters, dimes and nickels that it has in tube inventory
	CONTINUE		Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
Retrieve the Software VERSION Number	SERVICE	SERVICE	Service mode entered
	⟶	VERS XXXXX	XXXXX = the version of software which is installed in the controller at this time

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS
Test DISPLAYS for lighting of all segments	SERVICE		SERVICE	Service mode entered
	——————▶		VERS XXXXX	
	↓		DISPL TEST	Allows testing of the displays to verify that all segments will light
	ENTER/ ACTION		◤▨◥	All segments in all of the displays should light
			DISPL TEST	Segments will remain lit for short time then prior display will return
	O P T I O N S	Repeat prior step		
		CONTINUE	READY	Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS
Use HOME MTRS to place all motors in the home position	SERVICE		SERVICE	Service mode entered
	⟶		VERS XXXXX	
	↓		DISPL TEST	
	↓		HOME MTRS	Allows setting all of the motors to the home position
	ENTER/ ACTION			All motors are put in home position if not already at home
	O P T I O N S	Repeat prior step		
		CONTINUE	READY	Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...			AND THE DISPLAY INDICATES		COMMENTS
Use COIN TEST to check communication with Coin Mechanism	SERVICE			SERVICE		Service mode entered
	⟶			VERS XXXXX		
	↓			DISPL TEST		
	↓			HOME MTRS		
	↓			COIN TEST		Allows completion of Coin Test procedure
	⟶			O P T I O N S	ACCEPT ON	Coin Mechanism will accept coins while in Coin Test mode
					ACCEPT OFF	Coin Mechanism will not accept coins while in Coin Test mode
	O P T I O N S	ENTER/ ACTION		O P T I O N S	ACCEPT OFF	Switch between Accept OFF and Accept ON modes
					ACCEPT ON	
		↓		Last message received from Coin Mechanism displayed		Keeps current ACCEPT option in effect while in Coin Test mode
CONTINUED ON THE NEXT PAGE						

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IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES		COMMENTS
Use COIN TEST to check communication with Coin Mechanism	Deposit a Coin	O P T I O N S		Coins are rejected if in Accept OFF mode
			TT NDQ MM	Coins are accepted if in Accept ON mode ----------------------- TT = Type of coin seen by coin mechanism Options: 1. NI = Nickel 2. DI = Dime 3. QT = Quarter 4. DO = Dollar (Mars TRC) ----------------------- NDQ = Tube inventory Options: 1. N = nickel tube at or above sensor 2. D = dime tube at or above sensor 3. Q = quarter tube at above sensor 4. The letters N D Q not displayed when inventory in the respective tube is below sensor ----------------------- MM = Messages Options: 1. TB = coin went to the tube 2. CB = coin went to the cash box
	Repeat prior step with another coin	O P T I O N S		
	CONTINUE		READY	Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES		COMMENTS
Use VALIDATOR TEST to check communication with the Validator	SERVICE			SERVICE	Service mode entered
	⟶			VERS XXXXX	
	↓			DISPL TEST	
	↓			HOME MTRS	
	↓			COIN TEST	
	↓			VALDTR TEST	Allows completion of Validator Testing procedure
	⟶		O P T I O N S	ACCEPT ON	Bill Validator will accept bills while in Validator Test mode
				ACCEPT OFF	Bill Validator will not accept bills while in Validator Test mode
	O P T I O N S	ENTER/ ACTION	O P T I O N S	ACCEPT OFF	Switch between Accept OFF and Accept ON modes
				ACCEPT ON	
		↓	O P T I O N S	COINS ONLY	If Validator Test is set to Accept OFF
				BILLS 00	If Validator Test is set to Accept ON

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IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...		AND THE DISPLAY INDICATES	COMMENTS
Use VALIDATOR TEST to check communication with Bill Validator	Insert a Bill	O P T I O N S	COINS ONLY	Bills are rejected if in Accept OFF mode
			BILLS XX	Bills are accepted if in Accept ON mode
				XX = total number of bills you have inserted
				XX is increased by one each time a bill is accepted
				Bills are accepted as long as change can be made. This applies when escrow has been enabled
				This test does not change the bill count data
	O P T I O N S	Repeat prior step with another bill		
		CONTINUE	READY	Options: 1. Close monetary door 2. Press another function switch 3. See advanced programming section for other options

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P13-1 TEST VEND a single selection . . . Without using money to establish credit	TEST VEND	TEST .00	Test Vend mode entered
	Use Selection Switch Panel to enter the selection to be vended	PRICE .00	Selection is vended.
	CONTINUE		Options: 1. Repeat prior step for another selection 2. Press FREE VEND twice 3. Close cabinet door and TEST VEND one more selection

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P13-2 TEST VEND a single selection . . . Using money to establish EXACT credit	TEST VEND	TEST .00	Test Vend mode entered
	Deposit coins and/or curency to establish a credit	CREDIT .XX	XX is the amount of credit established
	Use Selection Switch Panel to enter the selection to be vended	PRICE .XX	XX is the price of the selection . . . The selection is vended and the credit is returned.

	CONTINUE		Options:
			1. Repeat prior step
			   for another
			   selection
			2. Press FREE VEND
			   twice
			3. Close cabinet door
			   and TEST VEND one
			   more selection

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P13-3 TEST VEND a single selection . . . Using money to establish EXCESS credit	TEST VEND	TEST .00	Test Vend mode entered
	Deposit coins and/or currency to establish a credit	CREDIT .XX	XX is the amount of credit established
	Use Selection Switch Panel to enter the selection to be vended	PRICE .XX	XX is the price of the selection . . . The selection is vended, correct change is returned and the credit is returned.

	CONTINUE		Options:
			1. Repeat prior step
			   for another
			   selection
			2. Press FREE VEND
			   twice
			3. Close cabinet door
			   and TEST VEND one
			   more selection

IF YOU WANT TO ...	ENTER THIS KEYSTROKE ...	AND THE DISPLAY INDICATES	COMMENTS
P13-4 TEST VEND a single selection . . . Using money to establish a credit SMALLER than the price of the selection	TEST VEND	TEST .XX	Test Vend mode entered
	Deposit coins and/or currency to establish a credit	CREDIT .XX	XX is the amount of credit established
	Use Selection Switch Panel to enter the selection to be vended	PRICE .XX	XX is the price of the selection
		PRICE .XX	You must deposit more money to make your total credit equal to or greater than the price on the display
	Deposit additional coins and/or currency to establish correct amount of credit	CREDIT .XX	XX is the total credit established. . . . Selection is vended. Change due is returned Credit is returned

	CONTINUE		Options:
			1. Repeat prior step
			   for another
			   selection
			2. Press FREE VEND
			   twice
			3. Close cabinet door
			   and TEST VEND one
			   more selection